

# 2001 NEVADA RECYCLING STATUS and MARKET DEVELOPMENT REPORT

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# **EXECUTIVE SUMMARY**

This report is submitted by the Division of Environmental Protection (NDEP) of the Department of Conservation and Natural Resources (DCNR) to satisfy the biennial reporting requirement of NRS 444A.070 on the status of recycling and reuse of materials in Nevada. It is also being submitted to satisfy the annual reporting requirement of NRS 444.587 on the status of markets for recycled materials and the development of those markets in Nevada.

Recycling statutes and regulations have largely been satisfied since the first recycling laws were passed ten years ago. After an approximate five year period of growth in recycling as the new laws established an infrastructure and programs for recycling in the state, the quantity of recycling has steadily declined over the last five years. The state recycling rate hit a high of approximately 15% in 1996 and has now fallen back to a rate of approximately 11% in 1999. This decline has proceeded in spite of an active education and infrastructure funding program by the NDEP, a growing population, and a vibrant economy.

The NDEP has closely studied and monitored a number of these issues and this report provides summary of those findings and recommendations to reverse recent trends. The NDEP strongly believes the state is capable of reaching the statutory goal of recycling 25% of its solid waste and that it is sound resource management to do so.

## **1.0 RECYCLING LEGISLATION**

### **1.1 Reporting Mandates**

This document fulfills two reporting requirements of the NDEP to the Nevada Legislature. NRS 444A.070 requires the director of the DCNR to deliver a biennial report on the status of current and proposed programs for recycling and reuse of materials and on any other matter relating to recycling and reuse which he deems appropriate. The biennial report is delivered to the director of the Legislative Counsel Bureau (LCB) on or before January 31 of each odd-numbered year for submission to the legislature. NRS 444.587 requires the NDEP to deliver an annual report which includes a general description of the markets for recycled materials in Nevada, any recommendations relating to increasing the demand for recycled materials and developing markets for recycled materials, the development of state and local policies which encourage the purchasing of products manufactured from recycled materials, and financial assistance and incentives to encourage the use of recycled materials in this state. This market development report is due to the director of the LCB for presentation to the legislature not later than February 1 of each year.

## **1.2 Historical Review of Nevada Recycling Legislation**

The 66<sup>th</sup> Session of the Nevada Legislature introduced the first comprehensive recycling laws to Nevada in 1991 which have been promulgated under Nevada Revised Statutes (NRS) Chapter 444A. These laws are intended to create an environment in Nevada where citizens who wish to participate in sound and sustainable practices of natural resource conservation could do so through programs of municipal waste recycling. They also provide citizens with a program of public education to increase the awareness of the individual responsibility to properly dispose of solid waste and encourage their participation in waste reduction, reuse, and recycling.

The 66<sup>th</sup> Legislature saw the passage of four bills related to recycling. Assembly Bill (AB) 320 was a wide-ranging bill that addressed issues of recycling and the management of certain special wastes. This bill also defined a goal of recycling 25% of the total solid waste generated within each municipality. Senate Bill (SB) 201 introduced uniformity and consistency to the recycling of plastic in Nevada by introducing law that requires plastic container identification. SB201 requires manufacturers and distributors of plastic containers in Nevada to imprint the standard industry code of the type of plastic resin from which it was made on the container. SB288 implemented the requirement that all branches of state government are to recycle their waste paper and paper products, unless granted special waiver by the director of the Budget Division. The fourth bill, SB361, addressed the issue of the creation and development of markets for recycled materials. It mandated that programs for the development of markets for recycled materials be implemented by the former Governor's Office of Community Services. It also established law requiring that state government and public schools consider the purchase of products containing recycled materials in their procurement procedures.

As stated above, AB320 introduced the most comprehensive recycling laws to Nevada. AB320 required the State Environmental Commission (SEC) to adopt regulations that set minimum standards for the collection and separation of recyclable materials from residential municipal solid waste and mandated minimum recycling program requirements based on the size of the municipality. It also granted the NDEP specific authority over the municipalities to approve these programs and required the NDEP to develop a model plan for recycling and for the management of household hazardous wastes and certain other special wastes. AB320 also required the establishment of a program for public education on recycling and waste management and to provide the public and municipalities with information and technical assistance to carryout its mandates. The SEC adopted regulations to implement these statutory requirements in November 1992. Since adoption, these regulations have been amended on several occasions to address subsequent statutory changes or to clarify and refine the regulations.

The original statutory requirements defined programs for municipalities of three population ranges. They were for municipalities with populations of 40,000 or greater, between 25,000 and 40,000, and with populations of 25,000 or less. In 1995, the 68<sup>th</sup> Legislature passed AB449 that amended this statutory provision by changing the population threshold value from 40,000 to 100,000, in response to concerns from Douglas

County that it would be unable to meet the higher program standards when it surpassed the 40,000 population limit.

AB320 established funding for the administration and implementation of its programs by instituting a \$1 surcharge on the retail sale of all vehicle tires in Nevada. Initially designated the “*Account for Recycling*”, these funds were due to sunset on March 15, 1993, at which time the revenue was to be diverted to the Nevada Department of Transportation for use in purchasing materials made from recycled feedstocks on highway projects.

After the promulgation of AB320, it became evident that a continued source of funding would be necessary to sustain the recycling programs it mandated after the sunset date. In 1993, the 67<sup>th</sup> Legislature passed law that reorganized the state government and eliminated the Office of Community Services. It transferred those responsibilities to the NDEP. The 67<sup>th</sup> Legislature also closed the “*Account for Recycling*” and rescinded the sunset provision for these funds. The legislature created the “*Account for Solid Waste Management*” in the state general fund and required deposit of the revenues generated by the \$1 tire surcharge to this account. It established the allocation of these funds between the three designated solid waste management authorities in the state (the NDEP, the Clark County Health District, and the Washoe County District Health Department) with a minimal allocation to the Department of Taxation to pay administrative expenses for collection of the surcharge. This account now funds the broader regulatory functions of solid waste management described in NRS 444.440 to 444.645, as well as NRS Chapter 444A requirements.

### **1.3 Recent Legislative & Regulatory Amendments**

In 1999, the legislature passed AB564, which amended NRS Chapter 444A recycling statutes by requiring the inclusion of public buildings along with residential premises as places, which must be offered services for recycling, if collection of solid waste is provided. Specifically, AB564 added the phrase “*and public buildings*” to several sections of Chapter 444A which previously stated only “*residential premises*”. The effect of this change is to; require the SEC to provide regulations for the separation of recyclables at public buildings as well as residential premises, require the NDEP to develop a model plan for recycling at public buildings as well as at residential premises, require counties which have adopted programs for recycling at residential premises to offer the same opportunity to public buildings within their jurisdiction, and to apprise those public buildings of that opportunity at least once every six months.

AB564 also amended the statutes requiring state government to recycle its waste paper and paper products. It provides the administrator of the court, the legislative commission, the board of regents of the University and Community College System and the SEC the opportunity to require the recycling of other types of waste besides paper generated within buildings under their jurisdiction. AB 564 also added the school districts to the list of government entities which must recycle waste paper and paper products, and directs the board of trustees to establish procedures to do so. It further required the NDEP to

provide any state agency with assistance in developing and implementing a recycling program, if requested by the agency to do so. Specifically, it amended NRS 1.115(3) (the courts), NRS 218.655(3) (the legislature), NRS 232.007(3) (the executive branch), and NRS 444A.110(2)(j) (NDEP to offer technical assistance).

To fulfill the public building requirements, the NDEP drafted amendments to NAC Chapter 444A recycling regulations that would satisfy the statutory changes. The NDEP has also written a model plan for recycling programs at public buildings. The NDEP held two public workshops in October 2000 to present these proposed regulatory changes and the model plan to the affected public and to solicit their comments. The NDEP addressed the public comments received at the workshops and made some modification to the proposed regulations. The proposed regulations are to be heard by the SEC for adoption in February 2001.

The NDEP also proposed regulations that were adopted by the SEC on December 16, 1999 setting standards and requirements for the operation of a materials recovery facility (MRF). A MRF is a facility operated for the processing and storage of recyclable materials recovered from the solid waste stream prior to shipment to a broker or manufacturer who uses the materials as a feedstock. These regulations are contained in NAC 444.7474 to 444.74779.

## **2.0 STATUS OF RECYCLING IN NEVADA**

### **2.1 Solid Waste Disposal Trends**

In conjunction with rapid population growth and a strong economy, Nevada solid waste generation and disposal quantities continue to increase. The table below shows the tonnages of solid waste reported disposed of in Nevada solid waste disposal sites from 1998 to 2000. The 2000 tonnages disposed are incomplete, as not all fourth quarter reports had been received in time for this report, however the tonnages reported for 2000 represent approximately 95% of the annual total. Final 2000 disposal estimates have been provided in the table parenthetically. These estimates are based on the quantities previously reported disposed of in the facility for the three categories of waste (in-state, out-of-state, and industrial & special). Wastes categorized as “industrial & special” include several types of solid waste, which have specific management requirements for permitted landfill disposal in Nevada, but by weight, typically about 90% of these wastes are debris from construction and demolition projects (wood, concrete, asphalt, drywall, etc.).

	1998	1999	2000
MSW Disposal from In-State Sources (tons)	3,003,261	3,152,658	3,124,812 (3,308,512)*
MSW Disposal from Out-of-State Sources (tons)	231,257	449,617	403,657 (544,307)*
Industrial & Special Waste Disposal (tons)	941,749	1,013,946	836,662 (914,572)*

\* Tonnages are estimates for total 2000 quantities based on previous quarterly disposal reports from the facility.

In-state generated municipal solid waste disposed has grown by approximately 5% per year in the three years from 1998 through 2000. This is expected due both to the state's population growth and strong economy. Out-of-state waste disposal, or waste importation, has more than doubled in this time period. This increase is almost entirely due to the disposal of waste from Sacramento County, CA in the Lockwood landfill in Storey County, NV beginning in the third quarter of 1998. The numbers for waste imports continued to grow in 2000 and are estimated to be approximately 15% greater than in 1999. This increase could be due to the strong economy in northern California, but in-depth analysis to determine the cause has not been performed by NDEP. Besides the Lockwood landfill in Storey County, the Mesquite landfill in Lincoln County and the West Wendover landfill in Elko County also accept wastes from out-of-state. However, the amount of waste imports accepted at these two facilities is approximately two orders of magnitude smaller than at Lockwood (1,000s of tons per year compared to 100,000s of tons per year).

Industrial and special waste trends are inconsistent during this time period. Factors, which may have affected these quantities, include a disruption in the construction and demolition debris disposal market in the Las Vegas region and larger variations in the generation of construction and demolition debris as compared to municipal solid waste due to major project startups and completions. The Las Vegas market for the disposal of construction and demolition debris was disrupted when the NDEP found one of the major disposal sites for these wastes in Lincoln County in violation of a number of permit requirements and solid waste regulations. The facility was required to cease acceptance of waste by court order in 1999. It is therefore possible that the estimated 10% decrease in industrial and special waste disposal from 1999 to 2000 is due to a reporting decrease in Las Vegas as the result of stockpiling on-site or diversion of these wastes to a non-reporting facility.

## 2.2 Recycling Rates and Trends

The recycling rate calculated annually by the NDEP indicates the tonnage of municipal solid waste recycled in Nevada has steadily declined over an approximate five year period. Statutory requirements to make recycling available have largely been met. Approximately

405,000<sup>1</sup> households in the state have curbside pick-up of recyclables available to them on a biweekly basis. In addition, there are a number of collection centers available for drop-off of recyclables at rural landfills, transfer stations, community centers, and material recovery facilities throughout the state.

The table below shows the recycling rates calculated by the NDEP and the quantities of municipal solid waste reported as diverted from disposal for the years 1997 through 1999. Estimates for recycling are not yet available for 2000. One can see that the quantity of waste recovered has steadily decreased and the quantity disposed has increased each year. Correspondingly, the recycling rate has decreased as well.

	<b>1997</b>	<b>1998</b>	<b>1999</b>
Tons of MSW Recycled	460,788	424,401	387,123
Tons of MSW Disposed <sup>1</sup>	2,723,266	2,863,192	3,048,408
Percent Recycling Rate	14.5%	12.9%	11.3%

<sup>1</sup>Tons of MSW disposed is tonnage of municipal solid waste reported disposed generated from counties participating in the recycling rate survey.

While the statutes require recycling programs of varying levels be made available to the public, participation in the programs is entirely voluntary. Therefore, those who do not have curbside recycling available frequently recycle only when they are reimbursed at an amount which is satisfactory to them. Because of slumping markets in almost every recyclable commodity, the amount of recycling appears to have followed the downward trend of prices. Analyses of the type and quantities of commodities recycled in relation to their market price reveals this trend. The table below shows the tonnages that were recycled of six common commodities for the years 1997 through 1999.

	<b>1997</b>	<b>1998</b>	<b>1999</b>
Paper	170,866	159,962	171,296
Ferrous Metals	139,631	138,478	70,255
Other Metals <sup>1</sup>	15,967	16,316	30,125
Plastics	2,449	2,449	2,823
Glass	10,237	10,483	9,261
Organic Materials	108,562	94,790	99,937

<sup>1</sup>Other metals include aluminum and non-ferrous scrap metal.

Most steel recycling is performed by scrap dealers, not municipal recycling programs. Therefore, the amount of steel recycling in Nevada closely parallels the market value. During the late summer of 1998, the price per ton of steel and ferrous metals fell by about 50% of their value from approximately \$30/ton to approximately \$15/ton. This market has still not recovered, although current market value is in the area of \$20/ton. The impact this had on Nevada recycling rates is evident by the table above; steel recovery fell in Nevada by about 50% between 1998 and 1999 from 138,478 tons to 70,255 tons.

1 Sources: Boulder City Disposal, Inc., Clark County Comprehensive Planning, and RSW, Inc.



Compare the performance of ferrous metals to that of plastics. Very nearly all plastics recycled in Nevada and the nation are beverage containers made of the resin HDPE or PET. Plastics have never achieved very high market value. While the price per ton is similar to steel, the much lower density of plastic requires a much larger volume to attain the same weight as compared with steel. This makes it less attractive to handle to scrap dealers and brokers and there are no facilities buying plastic beverage containers from consumers in Nevada. The price per ton of natural (clear, uncolored) HDPE scrap was approximately \$20/ton in early 1997. The price fell to a low of approximately \$7/ton by January 1999 and slowly recovered to approximately \$15/ton by the end of 1999. It has remained steady since that time. In spite of this market fluctuation, the recovery of plastic has remained relatively constant, due to the fact that municipalities have made available plastic recycling to those on a curbside program, regardless of the value. However, because the quantity of waste disposed in Nevada continues to grow, the relative recovery of plastic has diminished.

Paper is a commodity, which falls between ferrous metals and plastics in this spectrum. Significant amounts of paper recovery are from both municipal programs and commercial programs. There are several different categories of recycled paper. Prices for all have been fairly steady since 1997, except corrugated cardboard. Prices for corrugated cardboard climbed rapidly from approximately \$40/ton in early 1997 to a high of nearly \$80/ton in late summer of 1997. The price for corrugated cardboard then fell sharply for all of 1998, finally bottoming at approximately \$30/ton in late 1998 and early 1999. It then recovered during 1999 stabilizing at approximately \$60/ton. As most corrugated cardboard recovery comes from commercial operations, large retail stores for example, this price fluctuation had an impact on paper recycling rates in Nevada. The recycling of paper fell from about 170,000 tons in 1997 to 160,000 tons in 1998, then recovered in 1999 to approximately 170,000 tons. The market for paper has a significant impact on the quantity recovered in Nevada, but this impact is moderated somewhat by the municipal recycling programs.

### **2.3 Recycling in Clark County**

Clark County has been selected for discussion in this report because of its overwhelming influence on state trends. During the three year period 1997 through 1999, Washoe County and Carson City's recycling rates grew significantly and rural Nevada recycling rates grew or remained steady. Clark County's recycling rate has declined during this same time period. In 1999, Clark County accounted for approximately 75% of the state's population<sup>2</sup> and 75% of the state's municipal solid waste disposal. As such, the state's waste disposal and recycling trends closely parallel the trends in Clark County. The table below illustrates this point by providing some of the data.



	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>Nevada MSW Disposed<sup>1</sup> (tons)</b>	2,798,349	3,003,261	3,152,658
<b>Clark County MSW Disposed (tons)</b>	2,047,323	2,157,796	2,327,935
<b>Nevada MSW Recycled (tons)</b>	460,788	424,401	387,123
<b>Clark County MSW Recycled (tons)</b>	301,238	266,258	211,601
<b>Nevada Recycling Rate</b>	14.5%	12.9%	11.3%
<b>Clark County Recycling Rate</b>	12.8%	11.0%	8.3%

<sup>1</sup>Disposal quantities reported from all counties in Nevada

As stated in Section 1.0 above, statutes require municipalities to implement a recycling program with minimum standards for service based on the population of the municipality and give the NDEP authority to approve or disapprove the plan. Clark County identified its recycling program in its Solid Waste Management Plan. Requirements of solid waste management plans are contained in NRS Chapter 444 regulations. Important requirements for consideration here are approval of the plan by the NDEP and reassessment of the plan at least once every five years. Following a municipality's reassessment, the solid waste management plan must be resubmitted to the NDEP for approval.

The Clark County solid waste management plan was due for this reassessment in 2000. Because of the declining recycling rates in Clark County, the NDEP notified the Clark County Health District that it recognized some deficiencies in the current recycling program and re-approval of the solid waste management plan was in part contingent on addressing these deficiencies. Foremost, the NDEP identified a lack of mechanisms in the current plan to implement program revisions should the recycling program falter.

The Clark County Health District was very receptive to NDEP's comments and concerns. They agreed to work closely with the NDEP on identifying possible remedies to the declining recycling rate and to implementing changes into the recycling plan which may help reverse this trend. The NDEP has subsequently granted the Health District an extension on the due date of the revised solid waste management plan until such information and data can be gathered to properly and adequately address the situation.

In October 2000, the NDEP invited the US Environmental Protection Agency (USEPA) to participate in a meeting with the Health District to identify the steps to take toward the writing and implementation of a successful recycling plan. The USEPA accepted and the results of the meeting were positive. A number of potential actions were identified. The first of these actions is to be a recycling forum held in Las Vegas with local policymakers and the recycling community in attendance. The purpose of the forum is to identify the issues which are hindering recycling in Las Vegas, and propose remedies to those issues which are effective and attainable. The recycling forum is currently in its planning stages and is scheduled to be held on March 13, 2001 in Las Vegas.

## **2.4 Summary of Solid Waste Disposal and Recycling Rates**

The quantity of municipal solid waste generated in Nevada has continued on pace with population and economic growth. The amount disposed, however, has outpaced Nevada growth due to waste importation, primarily from California. The quantity of municipal solid waste diverted from landfill disposal has fallen in the last three years both in absolute value and as a percentage of the total quantity of municipal solid waste generated. The recycling rate in Nevada has declined from approximately 14.5% in 1997 to 11.3% in 1999. This trend can be linked to the steady decline of recycling in Clark County.

While there are a number of reasons for this performance, two important reasons identified by the NDEP are poor markets for recyclables and the lack of convenient recycling services in Nevada. Analysis of the quantity of materials recovered shows that if a convenient method for recycling is available, people will continue to recycle materials regardless of the market value.

### **3.0 NDEP RECYCLING CONTRACTS PROGRAM**

#### **3.1 Funding**

As discussed in detail in Section 1.2, state recycling programs are funded from the revenues of the \$1 surcharge on the purchase of a new retail tire in Nevada. By statute, these funds are deposited in the Solid Waste Management Account and the funds are divided four ways as follows; 44.5% to the Department of Conservation and Natural Resources, 30% to the board of health of the largest health district in the state (Clark County), 25% to the board of health of the second largest health district in the state (Washoe County), and 0.5% to the Department of Taxation. The table below shows the allocation of revenues from the Solid Waste Management Account between the four jurisdictions and the total revenues collected for the three year time period from State Fiscal Year (SFY) 1998 to SFY 2000.

<b>SWMA Revenue Distribution<sup>1</sup></b>	<b>SFY 1998</b>	<b>SFY 1999</b>	<b>SFY 2000</b>
DCNR	\$527,345.76	\$576,082.98	\$594,875.57
Clark County	\$355,514.02	\$388,370.54	\$401,039.73
Washoe County	\$296,261.69	\$323,642.12	\$334,199.77
Dept. of Taxation	\$5,925.25	\$6,473.84	\$6,684.00
Total	\$1,187,044.72	\$1,296,567.48	\$1,338,799.07

<sup>1</sup>Values shown in dollars prior to any balance forward adjustments.

Annual revenues for the tire surcharge have grown by approximately 13% in the three year time period. The growth of these revenues can be attributed to economic and state population growth. In addition to recycling programs, the NDEP uses the Solid Waste Management Account to fund all solid waste management activities it conducts in the state including landfill permitting, inspections, and compliance programs.

#### **3.2 Recycling Contract Administration**

In the three year period from SFY 1998 to SFY 2000, the NDEP has entered into contracts for recycling with nineteen different entities. The value of these contracts over the three year period was \$365,471.89. This is approximately 22% of the NDEP's share of the Solid Waste Management Account for this period. The nineteen contractors included eight municipal governments or their agents, five not-for-profit organizations, two university affiliated groups, two school districts, and two state agencies. The regions focused on by the nineteen projects funded were eleven with focus on urban western Nevada, three with statewide focus, three with a rural focus, and two with a focus on Las Vegas. The table below summarizes the funding provided by NDEP for the recycling contracts program for the time period SFY 1998 through SFY 2001.

	<b>SFY 1998</b>	<b>SFY 1999</b>	<b>SFY 2000</b>	<b>SFY 2001</b>
<b>Contract Funds Committed</b>	\$127,474.49	\$96,060.00	\$141,907.40	\$114,696.40
<b>Contract Funds Expended</b>	\$117,024.32	\$89,326.70	\$86,876.15	Not Avail.

Starting in SFY 1999, the NDEP began to consider multi-year term contracts for projects that will reasonably go beyond an one year term. These contracts are considered along with contracts receiving support for an one year term during the request-for-proposal process; however, to improve the overall efficiency and reduce the administrative workload of the program, they are awarded a multi-year contract. Currently, the NDEP is managing eight contracts with a two year term, six of them have completion dates of June 30, 2001. The NDEP has also committed funding in the amount of \$30,450.00 to two contractors for SFY 2002.

### **3.3 Recycling Contract Scopes**

The nineteen different entities that received contracts from the NDEP from SFY 1998 to SFY 2000 have been involved in a wide range of projects intended to provide infrastructure and a network for recycling in Nevada as well as to educate policymakers and the public of the importance of sound solid waste management. There have been twelve projects related to recycling infrastructure or network development. These include three waste oil heating units in Eureka, Esmeralda, and Pershing Counties, recycling/reuse centers for teachers in the Carson City and Clark County School Districts, phonebook and Christmas tree recycling campaigns in Washoe County and Carson City, household hazardous waste collection programs or centers in Douglas County and Washoe County, compartmentalized collection bins in several locations in Douglas County, a program for wildfire fuel composting in Douglas County, and funding of the recycling assistant position for the UNLV Rebel Recycling program.

There have been six projects primarily targeting public education over this time period. These projects include advertising and educational materials on used oil management in Washoe County, seminars on sustainable economic growth held in Reno and Las Vegas, a statewide study on market development for recyclable commodities by the Nevada Commission on Economic Development, public service announcements on the importance

of recycling distributed statewide, a consultation and education program on commercial and institutional waste reduction in Washoe County, and the publication and distribution of newsletters focused on recycling and waste reduction in Carson City. The NDEP also funded the purchase of playground equipment manufactured from post-consumer recycled materials for the Scarselli Elementary School in Douglas County.

### **3.4 Other Educational Outreach Efforts**

NDEP provides recycling information to the public by having a presence at Earth Day events around the state, through the Nevada Recycling Hotline, and by occasionally speaking at seminars and workshops. The Nevada Recycling Hotline is a toll-free telephone number that allows people in Nevada to call and find out where they can take their recyclables if they don't have curbside recycling. The Nevada Recycling Hotline is answered by a NDEP recycling staff person so other recycling related information is available as well, such as information about environmental events, Earth Day celebrations, household hazardous waste disposal, and recycling statutes and regulations.

The NDEP currently has a request-for-proposal released through the Division of Purchasing to contract for services for the development of a logo for the state recycling program and to conduct an advertising campaign to promote the program. With funding for these services limited, the NDEP has suggested the advertising campaign focus on promotion of the recycling hotline in Clark County. The deadline for submittal of a proposal to this request is February 1, 2001.

### **3.5 Recycling Contracts Summary**

The NDEP recycling contracts program continues to provide funding for recycling infrastructure development and waste management education. The current funding level from the new tire surcharge remains an adequate resource to meet the needs of this program. Contract selection has been a request-for-proposal process. In spite of efforts by the NDEP to adequately advertise these contracts in southern Nevada and Las Vegas, a disproportionate number of requests come from western Nevada. The NDEP hopes to change this trend in the future by identifying more entities in Las Vegas who may be interested in performing an appropriate project in Las Vegas and southern Nevada.

## **4.0 MARKET DEVELOPMENT REPORT**

### **4.1 Introduction**

NRS 444.587 mandates the NDEP to submit an annual report to the director of the legislative counsel bureau. The report must include:

- 1) a general description of markets for recycled materials in the state;
- 2) any recommendations relating to increasing the demand for recycled materials and developing markets for recycled materials;
- 3) the development of local and state policies which encourage the purchasing of products manufactured from recycled materials; and

- 4) financial assistance and incentives to encourage the use of recycled materials in the state.

This is the ninth annual recycling market development report submitted to the director of the LCB. Each of the past eight legislative reports have contained similar recommendations and information with few variations. Three of these recommendations have been carried over to this report and are as follows: 1) establish a staff position that has recycling market development responsibilities within the Nevada Commission of Economic Development (NCED) and move primary responsibility for NRS 444.587 mandates from the NDEP to NCED; 2) establish “Buy Recycled” policies that require state and local agencies to purchase recycled content products and to provide incentives for businesses to use recycled feedstock in their manufacturing process, e.g., provide low interest loans, grants, and other funds; 3) provide tax incentives for businesses that use recycled materials as feedstock. The following report includes information supporting these recommendations.

#### **4.2 Transition of Market Development Responsibilities**

Each of the previous legislative reports have recommended that Nevada provide coordinated recycling market development activities in one of the economic development agencies. Alabama, Arizona, Maryland, Minnesota, New Hampshire, New York, Texas, Utah, Washington, and Wisconsin have full time staff working on recycling market development in an economic development agency. Several other states have a full-time market development position in environmental protection agencies. In each of these other states, the market development duties are assigned separately from the recycling coordinator duties. This is not the case in Nevada. Nevada has two full-time recycling staff (one Program Assistant II and one Environmental Scientist III) dedicated to promoting all aspects of recycling, including composting, recycling measurement, market development, responding to requests and providing public information, promoting sound management of household hazardous waste, writing legislative reports, providing technical assistance, encouraging “buy recycled” policies, and more. Because of the breadth of duties, it is a challenge for recycling staff to focus in depth on any one particular aspect of recycling. In addition, market development is an area that requires specialized experience not typically found among environmental staff.

The NCED expressed some interest in recycling in 1995 and 1996. Using NDEP grant funds as a match, NCED applied for, and was awarded grant funding from the US Environmental Protection Agency (USEPA). With USEPA funding, NCED was able to develop a one-year contract for a Recycling Economic Development Advocate (REDA). The focus of work performed by the REDA was to build markets for secondary materials in Nevada through business attraction activities and, consequently, develop jobs in the recycling industry. When USEPA funding was exhausted, the NDEP developed a one-year contract with the NCED to continue the work of the REDA in Nevada. Unfortunately, the effort put forth by the REDA contractor was, for the most part, unsuccessful in contributing to development of any new markets for recyclable material.

Although NCED is better suited to develop recycling markets, the legislative mandate for this function remains with NDEP. This mandate should be transferred to NCED, and the resources for a new position should be allocated to carry it out. Under the present arrangement, NCED does not intend to participate in recycling market development.

#### **4.3 Recycled Content Product Procurement**

In order for recycling to be successful, all the components of recycling must be in place. Recycling is far more than simply collecting materials at curbside. The collected materials must be transported, processed, transported again, remanufactured, transported, and then purchased by consumers. Of course, the status of recycling in Nevada could improve if local manufacturers used locally collected recycled materials in their manufacturing process. Yet, an equally important component of the recycling loop is the “buy recycled” component. Once the recyclables are collected, processed and remanufactured, it’s up to consumers (including federal, state and local governments) to purchase products containing recycled material. Supporting “buy recycled” efforts and creating “buy recycled” policies will help create a demand for recycled content products.

Large purchasing agencies (state and local governments) can help create the demand for these recycled-content products. Current Nevada law allows agencies to purchase products made from recycled materials and even pay a 5% purchase preference (10% if manufactured in Nevada) for those products (see NRS. 332.065, NRS 333.4606 and NRS 333.4609.) This purchase preference allows agencies to spend more money to purchase products with recycled content; however, with limited budgets, there is little incentive for agencies to spend extra money. Furthermore, according to the National Recycling Coalition’s “Buy Recycled Business Alliance,” purchase preferences alone do not increase the purchase of recycled content products.

Agencies reporting to the federal government are required to use recycled content paper for their reports. This is the only requirement of agencies to purchase recycled paper. State and local agencies in Nevada are not *required* to purchase any other types of recycled content products. A clear policy that requires purchase of recycled content products is needed.

Washoe County is a leader in recycling in Nevada. In 1998, Washoe County adopted a buy recycled policy, and in January 2000 hired the first County Recycling Coordinator in Nevada. This progressive attitude is reflected in Washoe County’s 1998 recycling rate, the highest in the state at 21%. Washoe County joined USEPA’s Waste Wise program and in October 1999, the County was recognized by the USEPA as a Waste Wise Partner of the Year. The County received a Waste Wise Award for its exceptional waste prevention programs and for demonstrating excellence and innovation in recycling. By implementing recycling programs Washoe County saved more than \$500,000 and sent 86,400 fewer pounds to the Lockwood landfill.

The following are four examples of the things Washoe County has done to reduce waste, encourage recycling and save taxpayer dollars. The County uses carpet squares rather



than rolls of carpet. The long-term costs are less because damaged and worn carpets can be replaced much cheaper than buying new carpet. The County recaps old school bus tires for use on County trucks. For the past six years, Evergreen Oil Company has sold the County re-refined oil and, in turn, buys back the used oil. Finally, the County requires that all bids be submitted on recycled paper.

In addition to large government agencies, many large companies are adopting environmentally preferable purchasing policies, as well. McDonalds Corporation, Patagonia, Inc. and JC Penney are examples of successful companies demonstrating how businesses can operate with a profit, reduce waste, and minimize their impact on the environment.

In November 1999, NDEP offered a satellite downlink workshop called “Buying Recycled: The Real Story About Cost, Availability, and Quality.” This session, sponsored by USEPA, offered examples of agencies and organizations all over the United States that have revised their purchasing specifications to include a preference for recycled content products.

The presenters in the satellite downlink expressed that the biggest challenge in encouraging the purchase and use of recycled products is convincing the procurement officials themselves. Each presenter expressed the need to educate the procurement officials on the quality and availability of recycled content products, and how to go about obtaining and testing recycled content products.

Additionally, there must be an incentive for purchasing officials to seek out recycled content products. Establishing a “buy recycled” or “environmentally preferable purchasing” policy would provide this incentive.

#### **4.4 Provide Incentives for Businesses**

Providing incentives for businesses to use locally recycled materials as feedstock is one way to build the infrastructure that will encourage recycling, reuse and waste reduction.

As reported in the 1998 Recycling Market Development report, “In trying to recruit recycling and re-manufacturing businesses (or assist local companies to expand) NCED found that the most frequently asked questions were:

- 1) What types of financial assistance does Nevada provide (with an emphasis on grants)?
- 2) Are there tax incentives for recycling businesses?
- 3) What is the state’s commitment to purchasing recycled content products?
- 4) What is the supply of secondary material?<sup>2</sup>

Answers to these questions are as follows:

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<sup>2</sup> 1998 Recycling Market Development Report, p 21.

- 1) Although grant/contract funds are available from NDEP to encourage recycling, reuse and waste reduction, these funds are available only to government agencies, the University and Community College System of Nevada, and nonprofit organizations. Available funds are not sufficient to support a financial assistance program for recycling businesses.
- 2) The NCED administers business assistance programs in Nevada. There is a tax abatement program through NCED. One provision allows property tax abatements for recycled-content product manufacturing businesses, but only if the real property investment is \$50 million or more, and the personal property investment is \$15 million or more. There are no loans, grants or tax incentives that are available specifically to encourage recycling businesses.
- 3) As previously mentioned, Nevada has no policy or mandate for state and local agencies to buy recycled content products.
- 4) The potential supply of secondary materials is unknown. What is known is the tonnage of materials collected for recycling and reported to the state. Every year Nevada municipalities report on the quantities of recyclable materials recovered and report this information to the NDEP per NAC 444A.135. NDEP recycling staff compile the information and calculate the annual recycling rate for the state and some of these data are available in Section 2.0 of this report.

The NDEP has knowledge of only a handful of businesses using recycled materials in their manufacturing processes; even fewer use locally recycled materials. It is possible that there exist some businesses using feedstocks from recycled materials in the state without NDEP's knowledge; however, based on the extensive reach of the NDEP recycling program, this is unlikely. The NDEP plans to research this issue and develop a comprehensive list of these businesses. It is hoped through contact with these businesses the NDEP can further identify what helps attract and germinate such businesses and what obstacles they face to start-up in Nevada.

#### **4.5 Market Development Summary**

The three recommendations in this report represent policy changes intended to promote recycling market development. Previous efforts by NDEP, NCED and its contractors have had no appreciable success in developing recycling markets. A number of significant barriers exist to establishing manufacturing businesses in the state. Nevada is a desert state with only two, widely separated urban centers, and these are based on a tourism economy. Nevada lacks water and other resources that often drive industrial siting decisions. It also lacks the heavy industry and manufacturing that might use recycled materials. Partly due to its desert setting, landfill space is relatively cheap and abundant in Nevada, and recycling markets have trouble competing with disposal markets for the same materials. It should be noted also that even states which are favorably situated for recycling markets, and which have aggressive market development programs, have had mixed success in this endeavor.

As stated earlier, the NDEP cannot directly create markets. It can, by virtue of technical expertise and information gathering ability, perform certain auxiliary market development functions. These include:

- ◆ maintain waste management and recycling issues within the public view through public information and education;
- ◆ provide information useful to private businesses which may develop markets for secondary materials; and
- ◆ recommend to the legislature, based on sound research, policy changes, that would encourage recycling market development.

## **5.0 RECOMMENDATIONS AND CONCLUSIONS**

### **5.1 Conclusions**

It has been ten years since the passage of comprehensive solid waste recycling laws in Nevada. This period has seen the implementation of regulations adopted to satisfy these laws. The statutes and regulations have been amended as the state gains the knowledge and experience to improve them. The current status of recycling in Nevada finds the state in satisfactory fulfillment of most of the statutory and regulatory requirements, yet the state still lags far behind the mandated goal of a 25% recycling rate.

The Nevada recycling rate in 1999 was approximately 11%. This continues an approximate five year decline from a high of about 15% in 1996. The NDEP firmly believes that the 25% recycling rate is attainable. Reno and Carson City rates were approximately 21% in 1999, but the poor performance of Clark County has pulled the state numbers down. While there are a number of factors leading to this decline that are out of the state's control, like market values of recyclables, there are a number of issues which the state can address through programmatic and legislative measures.

The NDEP recycling program has been funded through the Solid Waste Management Account. The NDEP uses its portion of the Account to pay administrative and overhead costs, including personnel salaries, required to run the state program. It also manages to maintain an active and vital program of public education and local support of recycling through a program of contracts, operation of a toll-free information hotline, and other outreach programs. To date, the NDEP has provided over \$1,000,000 in support of these programs.

The NDEP has also tried to fulfill its requirements associated with the development of markets for recycled materials in the state. While the NDEP has been able to provide some research and information on the issue, it has found much of the work to be beyond its areas of expertise and resources.

## 5.2 Recommendations

Following are recommendations the NDEP believes will aid Nevada in reaching its 25% recycling goal.

- 1) A proactive stance by Clark County policy makers to improve the recycling infrastructure and increase the convenience of residential recycling. Municipal government leadership is needed to move recycling forward. Presently, curbside recycling is available to single family homeowners, only. Improved collection of recyclables must be added for apartment dwellers and businesses. Recent legislation adding “*public buildings*” to the list of entities that must have source separation of recyclables provided to them is a step in the right direction, but it is not enough.
- 2) The NDEP needs to improve outreach in Clark County by providing more of the recycling contract resources there. NDEP hopes that the upcoming recycling forum will help identify more potential contractors who are willing to focus projects in Clark County.
- 3) The generally successful implementation of the recycling programs mandated in statutes stands in contrast to the failure to progress towards the 25% recycling goal. The NDEP should evaluate the adequacy of existing regulations and propose changes based on the findings of the evaluation.
- 4) The NDEP encourages legislative change that will transfer more of the market development responsibilities to an economic development agency with expertise and resources in this area. The original statutes placed this mandate on the former Governor’s Office of Community Services. Since this office has been disbanded, the NDEP has been mandated with these responsibilities.
- 5) The NDEP encourages legislative change to establish a “buy recycled” or “environmentally preferable” purchasing policy to state procurement statutes and regulations. This will help increase the demand for recycled commodities.
- 6) The NDEP encourages legislative change that will provide economic incentives to businesses that use recycled materials in their operations. Particularly, the NDEP encourages strong economic incentives for manufacturers that use locally recycled materials in their feedstocks. This will increase the demand and marketability of locally recycled materials.